



Duration 2 Days

Prerequisites:

- Advanced Part Modeling

Course Outline

Mold Design Using SOLIDWORKS teaches you several manual mold creation techniques and how to use the Mold Tools in SOLIDWORKS mechanical design automation software.

The main topics covered include:

Lesson 1: Surface Concepts and Imported Geometry

- Importing Data
- 3D Model Types
- Definitions
- Case Study: Solids vs. Surfaces
- Terminology
- File Translators
- Modeling Systems
- File Translation
- Why Do Imports Fail?
- Diagnosis and Repair
- Case Study: Repairing and Editing Imported Geometry
- Checking Solid Bodies
- Making Copies of Faces
- Case Study: Import Diagnostics
- Repairing Gaps
- Repairing Faces

Lesson 2: Core and Cavity

- Core and Cavity Mold Design
- Case Study: A Simple Two Plate Mold Design
- SOLIDWORKS Mold Tools
- Mold Analysis Tools
- Analyzing Draft on a Model
- Draft Analysis Colors
- Scale the Part to Allow for Shrinkage
- Determine the Parting Lines
- Manual Selection Of Parting Lines
- Automation
- Modeling the Parting Surfaces
- Smoothing the Parting Surface
- Surface Bodies
- Interlocking the Mold Tooling
- Creating the Mold Tooling

Lesson 3: Side Cores and EDM Design

- Multiple Parting Directions
- Trapped Molding Areas
- Side Cores
- Feature Freeze
- Lifters
- Core Pins
- Case Study: Electrode Design
- Electrode Clearances
- Keeping the Sharp Edges
- Flexible Tubing with Auto Route
- Orthogonal Tubing Routes with Auto Route

Lesson 4: Advanced Parting Lines, Shut-Off Surfaces, and Cores

- Parting Lines and Shut-Off Surfaces
- Draft Analysis Options
- Parting Line Options
- Core and Cavity Surfaces
- Shut-Off Surfaces
- Parting Surface
- Tooling Split
- Seeing Inside the Mold

Lesson 5: Using Surfaces for Model Prep and Interlocks

- Surfaces in Mold Making
- Creating New Drafted Faces
- Interlock Surfaces

Lesson 6: Using Surfaces for Mold Design Features

- Surfaces for Mold Design Features
- The Mixer
- Mold Split Folders

Lesson 7: Alternate Methods for Mold Design

- Using Combine and Split
- Creating a Cavity
- Using Surfaces
- Using the Up To Surface Method
- Using the Split Method
- Manually Creating Shut-off Surfaces

Lesson 8: Reusable Data

- Reusing Data
- Design Library
- Task Pane
- Library Features
- Configurations in Library Features
- Smart Components

Lesson 9: Completing the Mold Base

- Organizing the Assembly
- Modifying the Lifters
- Ejector Pins
- Cooling the Mold
- Making the Drawing
- Making Changes
- Completing the Process

Please do not hesitate to contact us for registration and further information

e: sales@pentagonsolutions.com | t: +44 28 90455 355